

### ABSTRACT

5 The present invention provides mutant proteins of steroid hormone receptors. These mutant proteins are useful in methods of distinguishing a steroid hormone receptor antagonist from a steroid hormone receptor agonist. The present invention also provides plasmids containing mutated steroid hormone receptor proteins and cells transfected with those plasmids. In addition, the present invention provides methods for determining whether a compound is a steroid hormone receptor antagonist or agonist. Also, the present invention provides methods of determining endogenous ligands for steroid hormone receptors. The invention further provides a molecular switch for regulating expression in gene therapy and methods of employing the molecular switch in humans, animals, transgenic animals and plants.

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